



National Corrections
& Law Enforcement
Training &
Technology Center





# ALERT

Army-Law Enforcement-Responder Technologies

Program Executive Office for Simulation, Training and Instrumentation
Project Manager for Instrumentation, Targets and Threat Simulators
Test, Training and Technology Integration Office (T3I Office)
Herndon, VA

Department of Justice
Federal Bureau of Prisons
National Corrections and Law Enforcement Training and Technology Center
Moundsville, WV

## **AGENDA**

- The Law Enforcement Technology Situation
- Our Approach
- Support
- Status
- Initial Findings
- Task Organization
- Resource Requirements
- Return on Investment
- Summary

## **HISTORY**

- Concept approval by PM ITTS (April, 2000)
  - Foundation concept (now outdated): Find dual use opportunities for Army technologies into law enforcement. Achieve lower end item cost to Army through larger market. Increase supportive constituency for dual use Army programs in Congress.
- Researched law enforcement publications to enhance technical approach (April, 2000)
- Validated approach with police officers (April-July 2001)
- Researched personnel options (July 2001)
- Brought police officer onto staff (October 2001)
- Secured letters of intent from agencies (October 2001 Present)
- Initiated data collection system approach to find common technology elements (July 2002 - Present)
- Establishing PEO STRI as the honest broker of common requirements information; serve as neutral developer when requested/required. (Present)

### The Situation (Pre-9/11)













#### **POLICE:**

- 40,000+ agencies & reporting chains
- Similar requirements
- No ability to secure R&D Limited to COTS items
- No conduit to identify/share requirements nationally

### **VENDORS:**

- Impractical to market to 40,000+ agencies
- Sales in units of 1 per agency at most; took time
- 87% of Agencies <20 Officers VERY small budget
- Unable to get technology to the officers











### **The Goal**













### **GOALS:**

- -Improve Police technologies
- -Enable Police to purchase from vendors or secure military hardware more quickly
- -Enable vendors to work with Police customers more effectively and efficiently
- -Give Police in-house R&D capabilities to address tough challenges
- -Improve national readiness & security







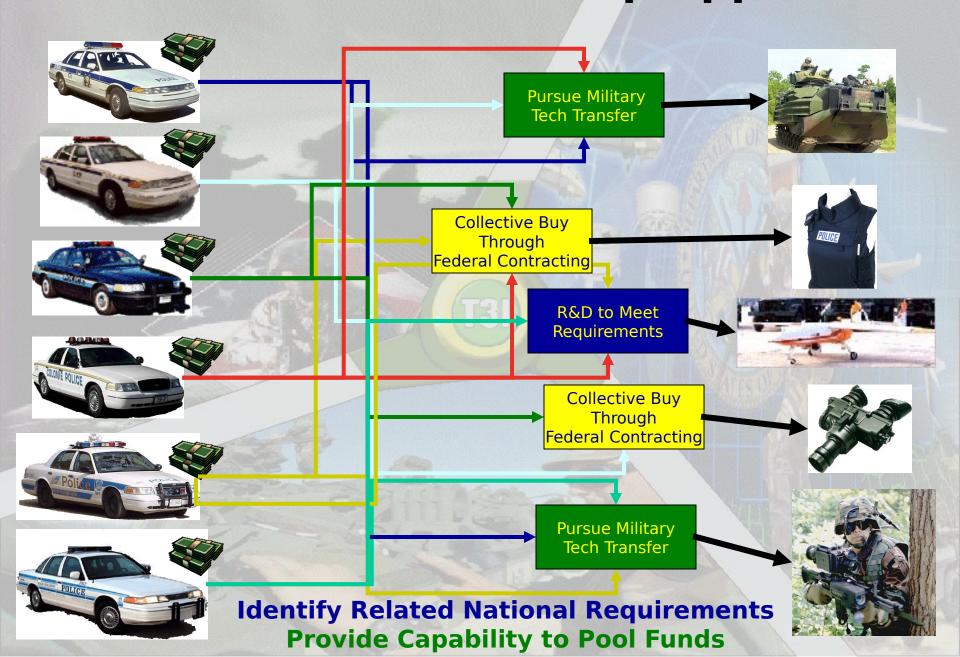




## The Situation (Post-DHS)



### **NCLETTC-T3I Partnership Approach**



## The Improvements













#### **POLICE:**

- -Can share maintenance and upgrade costs
- -Have collective buying power for purchase/upgrade
- -Have R&D capability to meet direct needs
- -Have communications to evaluate procurements
- -Have life cycle support for procurements
- -Budgets stretched through new buying power

#### **VENDORS:**

- -Market to requirements identified at Federal level
- -Compete for ONE contract of higher value
- -Able to afford to maintain systems fielded
- -Able to depict products to customers en masse











Police get stronger voice in procurement
Collective funding stretches further

## The Improvements













How do we do this???







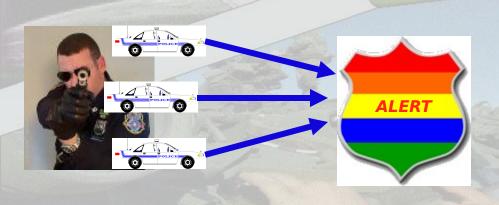






Phase 1: ATTRO collects Army requirements and identifies emerging Army technologies

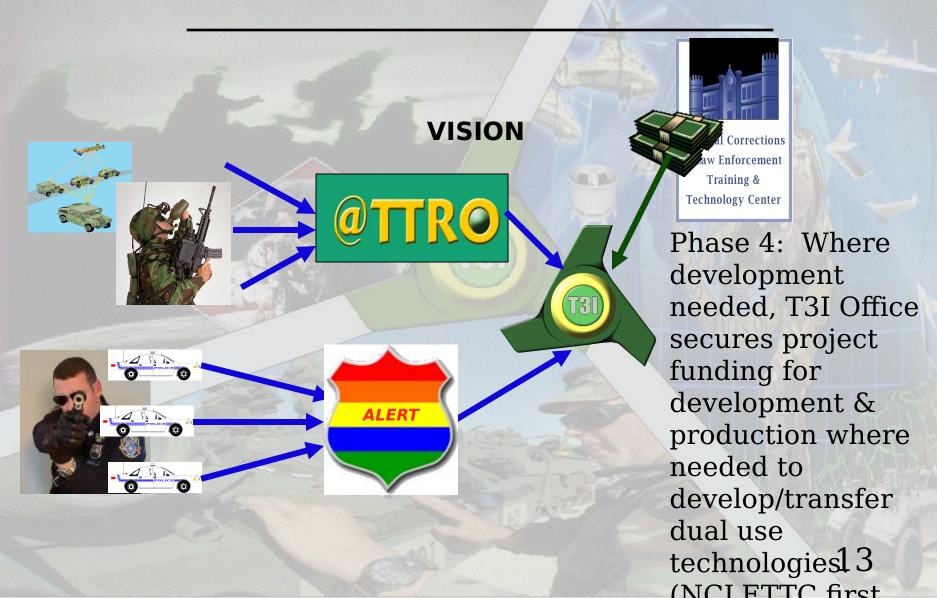


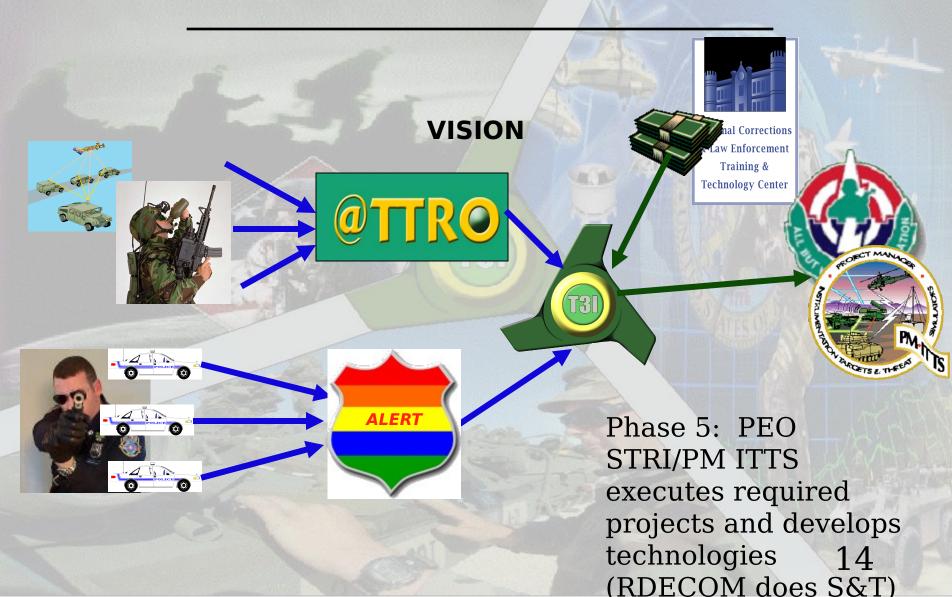


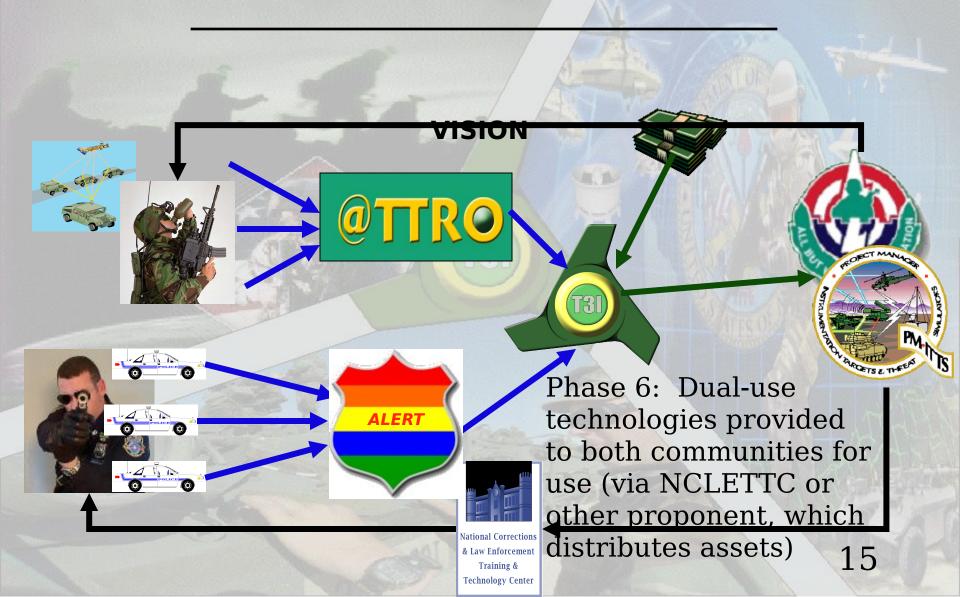
Phase 2: ALERT collects Law Enforcement requirements and capabilities

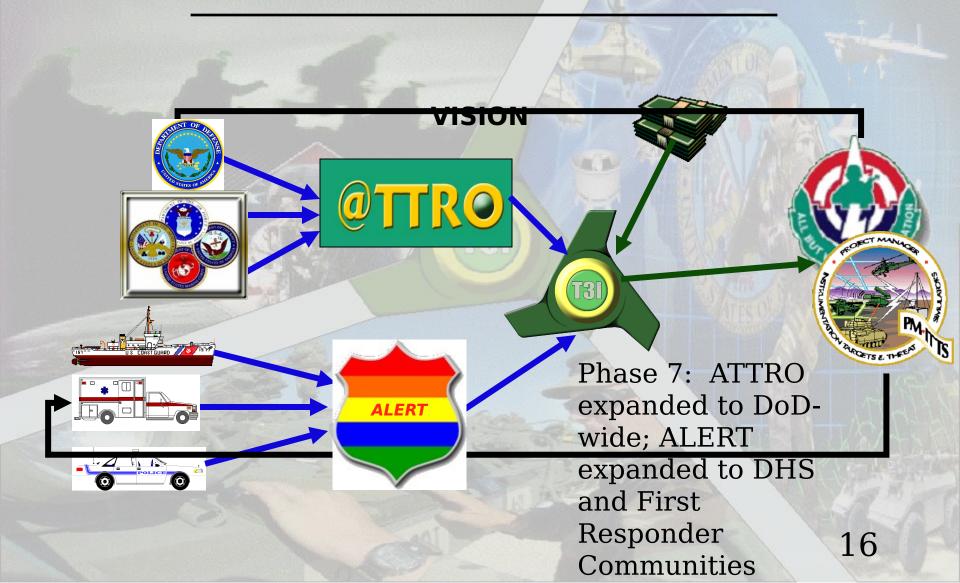


Phase 3: T3I Office serves as honest broker; identifies dual use technology candidates to Army and Civilian Law Enforcement & disseminates information and contacts as appropriate FREE OF CHARGE.









### **The End State**













#### **POLICE:**

- -Can identify available military technologies
- -Can procure, R&D, or tech transfer at their option
- -Can find related requirements and available capabilities
- -Can better afford current technologies

#### **VENDORS:**

- -Sell to police en masse
- -Reduce financial cost to market
- -Ideally, pass savings on to police agencies











## **APPROACH**

- Collect technology needs information from U.S. Law Enforcement Agencies (40,000+)
- Identify dual use technologies between Army and Law Enforcement
- Serve as honest broker between technology needs and capabilities in support of the Global War on Terrorism
- Assist law enforcement agencies to merge local and/or Federal funds for their needs as appropriate
- Support integration of existing technologies, where appropriate and permitted
- PEO STRI serve as lead systems integrator for the new technologies as required

### Maryland

- Annapolis City Police
- ✓ Anne Arundel County Police
- ✓ Baltimore City Police\*
- **✓** Baltimore County Police
- ✓ Calvert County Sheriff\*
- ✓ Cambridge City Police
- ✓ Capital Heights Police
- ✓ Carroll County Sheriff\*
- ✓ Cecil County Sheriff\*
- ✓ Charles County Sheriff\*
- ✓ Cumberland City Police
- ✓ District Heights Police
- ✓ Dorchester County Sheriff\*
- ✓ Fairmount Heights Police
- ✓ Frederick City Police\*
- ✓ Frederick County Sheriff\*
- ✓ Greenbelt City Police
- √ Hagerstown City Police\*
- ✓ Howard County Police
- ✓ Hyattsville City Police
- ✓ Laurel City Police
- ✓ Maryland State Police\*

### Maryland (Cont)

- ✓ Montgomery County Police
- ✓ Ocean City Police
- Prince George's County Police
- ✓ Prince George's County Sheriff\*
- **✓ Queen Anne County Sheriff**
- ✓ Salisbury City Police
- ✓ Seat Pleasant Police
- ✓ St. Mary's County Sheriff \*
- **✓ Washington County Police**
- **✓** Worcester County Sheriff

### New Jersey

- ✓ New Jersey State Poli
- ✓ Atlantic City Police\*
- ✓ Lacey Township Police



<sup>\*</sup> Received written confirmation of support on department letterhead.

### Virginia

- ✓ Arlington County Police\*
- ✓ Charlottesville City Police\*
- √ Fairfax City Police\*
- **✓** Falls Church City Police\*
- ✓ Hampton City Police\*
- ✓ Hanover County Sheriff\*
- ✓ Leesburg City Police\*
- ✓ Montgomery County Sheriff\*
- ✓ Newport News City Police\*
- ✓ Portsmouth City Police\*
- ✓ Richmond City Police\*
- √ Virginia Beach City Police\*
- ✓ Virginia State Police\*
- √ Waynesboro City Police\*
- ✓ Wythe County Sheriff\*



- ✓ Marshall County Sheriff\*
- **✓ Mercer County Sheriff\***
- ✓ Ohio County Sheriff \*
- ✓ West Virginia State Police \*

#### Kansas

**✓ Leavenworth County**Sheriff's Office

### **Rhode Island**

- ✓ Middletown PD
- ✓ Portsmouth PD





<sup>\*</sup> Received written confirmation of support on department letterhead.

- Delaware
  - **Delaware State Police**



- Washington, DC
  - **DC** Police
- North Carolina
  - ✓ Winston-Salem Police



- Ohio
  - ✓ City of Columbus CIO
  - ✓ City of Delaware Police
  - ✓ Warren County Sheriff



- Indiana
  - Clinton County Sheriff





#### California

- **✓ Tulare County District A**
- ✓ Tulare County Sheriff-Coroner
- **Merced County Sheriff & DA**
- ✓ Stanislaus County Sheriff &
- ✓ San Joaquin County Sheriff &
- ✓ Kings County Sheriff & DA
- ✓ Kern County Sheriff & DA
- ✓ Fresno County Sheriff & DA
- ✓ Madera County Sheriff & DA
- ✓ San Luis Obispo County Sheriff & DA

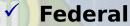
### **Florida**



- ✓ Orange County Sheriff
- ✓ Osceola County Sheriff
- ✓ Brevard County Sheriff
- ✓ Lake County Sheriff
- ✓ Indian River County Sheriff
- ✓ Seminole County Sheriff
- ✓ Martin County Sheriff
- ✓ St. Lucie County Sheriff
- ✓ Volusia County Sheriff

### Pennsylvania

- ✓ Johnstown City Police\*
- ✓ Lancaster County Police\*
- ✓ Pennsylvania State Police\*
- ✓ Philadelphia City Police\*
- ✓ Pittsburgh City Police\*
- √ Tredyffrin Township Police\*
- ✓ York City Police \*







✓ Science and Technology





## **Supporting Organizations**

- NTOA: National Tactical Officers' Association (Doylestown, PA)
  - > >30,000 Members from >5,000 Agencies
- ASLET: American Society of Law Enforcement Trailing (Frederick, MD)
  - > 12,000 Members
  - Blackwater Training Center (Moyock, NC near Norfolk, VA)
    - Newsletter Distribution: >35,000 Recipients
- IACP: International Association of Chiefs of Police (Alexandria, VA)
  - > 19,000 Members
  - National Fraternal Order of Police (Nashville, TN)
    - > >310,000 Members in >2,100 Lodges









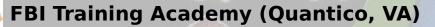
## **Supporting Organizations**

NCLETTC: National Corrections & Law Enforcement Training & Technology Center (Moundsville, WV)



**Technology Center** 

OLETC: Office of Law Enforcement Technology Commercialization
 (Wheeling, WV)





- VDCJS: Virginia Department of Criminal Justice Services (Richmond, VA)
- Southwest L.E. Academy (Bristol, VA)
- New River Criminal Justice Training Academy (New River, VA)
- Agricultural Crime Technology Information and Operations Network (ACTION) (Tulare, CA)





## **Related Support**

- Academia
  - ▼ The Ohio State University
  - ✓ The University of Central Florida
  - ✓ Georgia Tech Research Institute



- Industry
  - ✓ H.J. Heinz
  - **✓ Harris Ranch**
  - **√** Vissar Dairies

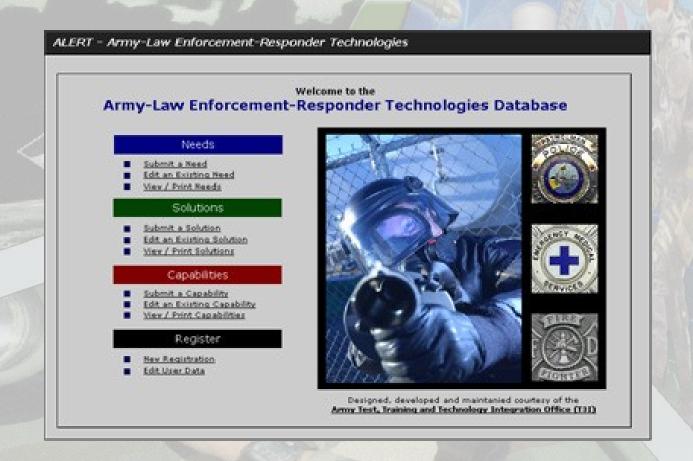


## In Process

- Meetings with Deputy Under Secretary of DHS
  - Nancy Suski (State & Local Programs) sponsored by Homeland Protection Institute
- Coordination between DoD and DHS ChemBio personnel
  - Tasked by Office of Chief of Staff, Army to establish joint meeting
- Technical Support Working Group (TSWG) Interface
  - Met with Director (Jeff David); will link ALERT requirements to TSWG process
  - Received intro to TSWG process
- Maryland Dept of Agriculture
  - Already spoke on phone to senior state Veterinarian (Jacob Casper, DVM), who is sponsoring meeting
- Ohio State University
  - Working technology incubator support for dual use technologies
- Georgia Tech
  - Working new technology and BAA funding avenues with us
- Georgia Emergency Management Agency
  - Being processed by GTRI
- Ready to reach out to all state Agriculture Departments (have found contacts for all 50)
  - Awaiting official kick-off of FL Ag Terror task force

## **STATUS**

- ALERT database written as a desktop application for Law Enforcement requirements collection
  - ✓ Web-based capability <u>ESSENTIAL</u> to success
  - ✓ Web site purchased (http://www.teamalert.net)
  - Developing web capabilities now



## A L E R T



#### Log Out\_richard.forgo1

#### Expand All | Collapse All

- **⊞** Organization
- **⊞** Events
- □ Online Applications
- TeamALERT Admin
- ALERT
- ☐ Home
- Needs
- Solutions
- Capabilities
- Search
- Cross Reference
- Contacts

#### Submit a need

Submitter: Richard Forgo

Title: Satellite Phone

Description:

Submit

Require a low-cost satellite-enabled telephone to facilitate communication in areas where cellular phone communications are not possible, such as remote ranges and agricultural properties. SatPhone should be durably constructed, be able to withstand a fall from six feet and be waterproof/resistant.

| Communications         |                       |                                 |  |  |  |  |
|------------------------|-----------------------|---------------------------------|--|--|--|--|
| Radios                 | Identifier Pack       | Voice Activation Capable        |  |  |  |  |
| GPS                    | Repeater Capable      | Encrypted                       |  |  |  |  |
| Mobile Data Terminals  | VHF                   | UHF                             |  |  |  |  |
| Mobile Phones          | Handheld              | Tactical Transportable/Man Held |  |  |  |  |
| 83                     | Weatherproof/Armored  |                                 |  |  |  |  |
|                        | Walkie Talkie Capable | Digital                         |  |  |  |  |
|                        | Headset Supported     | Flip Phone                      |  |  |  |  |
| Transportation         |                       |                                 |  |  |  |  |
| ■Weapons               |                       |                                 |  |  |  |  |
| Clothing               |                       |                                 |  |  |  |  |
| ☐ Protective Equipment |                       |                                 |  |  |  |  |
| Munitions              |                       |                                 |  |  |  |  |
| □Technology            |                       |                                 |  |  |  |  |
|                        |                       |                                 |  |  |  |  |

## **STATUS**

- ALERT-Desktop version distributed to 43 agencies who agreed to test it
- National Tactical Officers Association (NTOA) willing to recommend ALERT as a national standard for capabilities sharing
  - Maryland Tactical Officers Association already provided first inputs . . . More than 100 detailed requirements
- American Society of Law Enforcement Trainers (ASLET) encouraging ALERT dissemination at annual conference
- Blackwater Training Academy promoting ALERT through national newsletter
- Interest and support rapidly growing beyond T3I capabilities to support it
- Partnered with National Corrections and Law Enforcement Training and Technology Center (NCLETTC)

# PLANNED FIRST TECHNOLOGIES (Low Hanging Fruit on LECTAC List)

- R&D Programs (in priority order):
  - Multi-Payload UAV
    - > payload priority based on requirements collected
      - Forward-looking camera
      - Down-looking camera
      - Visual, IR, sensors
      - Smoke/gas release
      - Gun
      - Wireless link
  - Multi-Payload UGV (self righting after thrown thru window)
    - Same payloads/interchangeable with UAV
  - Biometric Identification Systems
    - Facial, voice, etc. recognition
  - Vital Signs Alert Monitor
    - Officer/soldier safety system, man-worn
  - Communications Encryption
    - Protection from bad guys & media not to DoD standards; more affordable
  - 2D TSPI Systems
    - Mesh GPS antennas and clothing; low profile GPS perpetrator/officer tracking systems
    - TSPI trackable garments or bracelets/ankle bracelets
    - Actual 2D TSPI Systems
- Collective Buying Arrangements (we procure en masse for small agencies and offer savings and availability without much R&D)
  - Thru-Wall Vision
  - Data Collection Systems
    - Battery powered, large scale hard drive/digital collection at camera mounts
- Long Term (complex issues will collect requirements now, but build in more distant future)
  - Buoyant Stratospheric Vehicle
  - 3D TSPI
  - Detectors
    - Chem/Bio
    - Currency
    - Explosive

## SUMMARY

- Ready to succeed
- Early success exceeding expectations
- Taking leadership role in agricultural terrorism response
- Supporting the nation in the Global War on Terror

## CONTACTS

T3I Office

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**T3I Office Project Lead:** 

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Fairmount Heights, MD Police Dept.

Frank.Borelli@us.army.mil

**Technology Development Lead:** 

Ralph Holweck, Senior Project Director

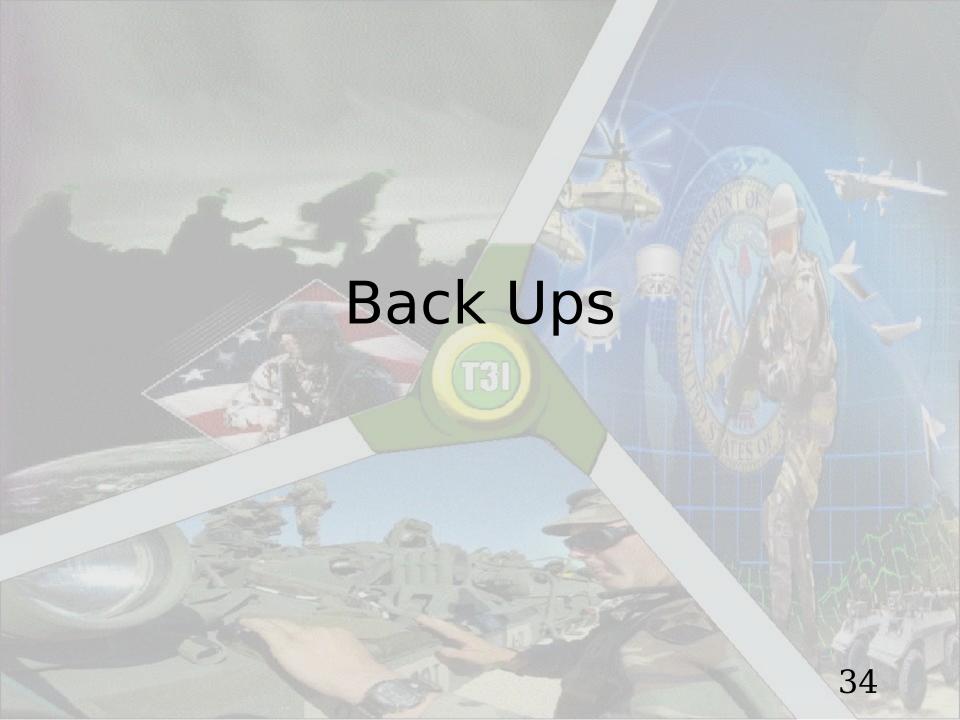
**PM ITTS IMO** 

**12350 Research Parkway** 

Orlando, FL 32826-3276

Ralph\_Holweck@peostri.army.mil





## States in Order of Population

| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11 |
|---|
| 3<br>4<br>5<br>6<br>7<br>8<br>9<br>10                 |
| 4<br>5<br>6<br>7<br>8<br>9<br>10                      |
| 5<br>6<br>7<br>8<br>9<br>10                           |
| 6<br>7<br>8<br>9<br>10<br>11                          |
| 7<br>8<br>9<br>10<br>11                               |
| 8<br>9<br>10<br>11                                    |
| 9<br>10<br>11   |
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| 11  |
| 10.500  |
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| 26  |
|   |

| A STATE OF THE PARTY OF THE PAR |           |     |
|--|-----------|-----|
| Oregon   | 3,559,596 | 27  |
| Oklahoma   | 3,511,532 | 28  |
| Connecticut  | 3,483,372 | 29  |
| Iowa   | 2,944,062 | 30  |
| Mississippi  | 2,881,281 | 31  |
| Arkansas   | 2,725,714 | 32  |
| Kansas   | 2,723,507 | 33  |
| Utah   | 2,351,467 | 34  |
| Nevada   | 2,241,154 | 35  |
| New Mexico   | 1,874,614 | 36  |
| West Virginia  | 1,810,354 | 37  |
| Nebraska   | 1,739,291 | 38  |
| Idaho  | 1,366,332 | 39  |
| Maine  | 1,305,728 | 40  |
| New Hampshire  | 1,287,687 | 41  |
| Hawaii   | 1,257,608 | 42  |
| Rhode Island   | 1,076,164 | 43  |
| Montana  | 917,621   | 44  |
| Delaware   | 817,491   | 45  |
| South Dakota   | 764,309   | 46  |
| Alaska   | 648,818   | 47  |
| North Dakota   | 633,837   | 48  |
| Vermont  | 619,107   | 49  |
| Wyoming  | 501,242   | 50  |
| District of Columbia   | 563,384   | (X) |

## Largest Agencies in the U.S.

(Source: US Dept of Justice Census of State and Local Law Enforcement Agencies, 2000)

| Table 7. Fifty largest loc<br>departments, by number<br>sworn personnel, June 2 | r of full-ti       |                  |
|---|--------------------|------------------|
| sworn personner, sune i   | 2000               |                  |
|   | Full-              | Percent          |
| City or   | time<br>sworn,     | change,<br>1996- |
| county  | 2000               | 2000             |
| New York (NY)   | 40,435             | 9.8%             |
| Chicago (IL)  | 13,466<br>9,341    | 1.7<br>3.8       |
| Los Angeles (CA)<br>Philadelphia (PA)   | 7,024              | 9.8              |
| Houston (TX)  | 5,343              | 0.8              |
| Detroit (MI)  | 4,154              | 6.4%             |
| Washington (DC)<br>Nassau Co. (NY)  | 3,612<br>3.038     | 0.7<br>1.0       |
| Baltimore (MD)  | 3,034              | 3.4              |
| Miami-Dade Co. (FL)   | 3,008              | 6.5              |
| Dallas (TX)   | 2,862              | -0.1%            |
| Phoenix (AZ)<br>Suffolk Co. (NY)  | 2,626<br>2,564     | 7.9<br>-6.6      |
| San Francisco (CA)  | 2,227              | 11.4             |
| Las Vegas-Clark Co. (NV)  | 2,168              | 27.8             |
| Boston (MA)   | 2,164              | 3.0%             |
| San Diego (CA)<br>Milwaukee (Wi)  | 2,022<br>1,998     | 1.8<br>-5.1      |
| Memphis (TN)  | 1,904              | 34.1             |
| San Antonio (TX)  | 1,882              | 0.5              |
| Cleveland (OH)  | 1,822              | 5.4%             |
| Honolulu Co. (HI)<br>Baltimore Co. (MD)   | 1,792<br>1,754     | -9.5<br>14.3     |
| Columbus (OH)   | 1,744              | 0.8              |
| New Orleans (LA)  | 1,664              | 24.0             |
| Jacksonville-Duval Co. (FL)<br>Denver (CO)                                      | 1,530<br>1,489     | 9.8%<br>4.3      |
| St. Louis (MO)  | 1,489              | -8.7             |
| Atlanta (GA)  | 1,474              | 0.0              |
| Newark (NJ)   | 1,466              | 20.0             |
| Charlotte-Mecklenberg Co. (I<br>Prince Georges Co. (MD)                         | NC) 1,442<br>1,431 | 12.1%<br>16.3    |
| San Jose (CA)   | 1,408              | 9.9              |
| Seattle (WA)  | 1,261              | 1.9              |
| Kansas City (MO)  | 1,253              | 6.8<br>10.6%     |
| Nashville-Davidson Co. (TN)<br>Fort Worth (TX)                                  | 1,249<br>1,196     | 2.0              |
| Fairfax Co. (VA)  | 1,163              | 9.0              |
| Austin (TX)   | 1,144              | 20.9<br>9.7      |
| Miami (FL)  | 1,110              | 8.0%             |
| El Paso (TX)<br>Indianapolis (IN)   | 1,057              | 5.4              |
| Pittsburgh (PA)   | 1,036              |                  |
| Cincinnati (OH)<br>Montgomery Co. (MD)  | 1,030<br>1,019     | 7.5<br>8.5       |
| Oklahoma City (OK)  | 1,011              | 0.2%             |
| Portland (OR)   | 1,007              | 2.4              |
| Tampa (FL)  | 939                | 5.6              |
| Buffalo (NY)<br>Tucson (AZ)   | 928<br>928         | 3.3<br>11.4      |
|   | 220                |                  |

| Table 11. Twenty-five largest sheriffs' offices, by number |
|--|
| and function of full-time sworn personnel, June 2000       |

|   |   | Full-time |        |          |            |          |         |   |
|---|---|-----------|--------|----------|------------|----------|---------|---|
| ı | County or   | swom      |        | Investi- | Jall       | Court    | Process | _ |
| ì | equivalent  | personnel | Patrol | qations  | operations | security | serving | _ |
| П | Los Angeles Co. (CA)  | 8,438     | 27%    | 8%       | 27%        | 18%      | 0%      |   |
| П | Cook Co. (IL)*  | 5,768     | 9      | 3        | 58         | 26       | 4       |   |
| П | Harris Co. (TX)   | 2,584     | 26     | 12       | 60         | 0        | 1       |   |
| ı | Orange Co. (CA)   | 1,770     | 40     | 8        | 42         | 0        | 0       |   |
| į | San Diego (CA)  | 1,553     | 49     | 13       | 7          | 16       | 3       |   |
| l | San Bernardino Co. (CA)   | 1,421     | 33%    | 15%      | 29%        | 10%      | 1%      |   |
| į | Sacramento Co. (CA)   | 1,372     | 42     | 11       | 32         | 9        | 1       |   |
|   | Broward Co. (FL)  | 1,310     | 73     | 27       | 0          | 0        | 0       |   |
| Н | Riverside Co. (CA)  | 1,286     | 58     | 16       | 16         | 8        | 2       |   |
|   | Orange Co. (FL)   | 1,211     | 48     | 10       | 0          | 8        | 5       |   |
|   | Palm Beach Co. (FL)   | 1,074     | 64%    | 23%      | 0%         | 9%       | 5%      |   |
|   | Hillsborough Co. (FL)   | 1,030     | 65     | 18       | 0          | 0        | 2       |   |
|   | Alameda Co. (CA)  | 909       | 15     | 2        | 48         | 16       | 1       |   |
|   | Nassau Co. (NY)   | 899       | 0      | 0        | 95         | 0        | 3       |   |
|   | Pinellas Co. (FL)   | 860       | 52     | 25       | 0          | 20       | 3       |   |
|   | Wayne Co. (MI)  | 821       | 14%    | 5%       | 58%        | 14%      | 1%      |   |
| 1 | Oakland Co. (MI)  | 800       | 41     | 8        | 48         | 3        | 1       |   |
|   | Ventura Co. (CA)  | 796       | 33     | 16       | 25         | 11       | 1       |   |
| 1 | San Francisco Co. (CA)  | 777       | 0      | 2        | 64         | 9        | 1       |   |
| 1 | Monroe Co. (NY)   | 777       | 31     | 3        | 52         | 13       | 1       |   |
| i | Fulton Co. (GA)   | 774       | 0%     | 1%       | 74%        | 25%      | 0%      |   |
|   | Calcasleu Par. (LA)   | 730       | 19     | 7        | 33         | 3        | 4       |   |
|   | E. Baton Rouge Par. (LA)  | 712       | 18     | 10       | 41         | 4        | 3       |   |
| į | Orleans Par. (LA)   | 685       | 6      | 2        | 82         | 6        | 4       |   |
|   | Jefferson Par. (LA)   | 681       | 41     | 29       | 0          | 0        | 0       |   |
| П | *Data for Cook County are estimates based on prior years' responses |           |        |          |            | _        |         |   |